

National Compensation Survey

Technical Note

The National Compensation Survey (NCS) program provides information on the average hourly earnings for occupational groups and individual occupations for approximately 80 metropolitan areas and 70 nonmetropolitan counties. The survey covers establishments employing 50 workers or more in goods-producing industries (mining, construction and manufacturing); service-producing industries (transportation, communications, and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; and services); and State and local governments. Agriculture, private households, and the Federal government are excluded from the survey.

Survey design

For each survey area, the first stage of sample selection employs a technique that uses a probability proportional to employment size to select the sample of establishments to be studied. That is, larger establishments, in terms of employment size, will have a greater chance of selection than smaller establishments. Weights are then applied to each establishment so that the data collected can represent units of similar industry and employment size, which were not selected for collection. The second stage of sample selection is a probability sample of occupations within a sampled establishment. As with the selection of establishments, the selection of jobs within an establishment is also through sampling using probability proportional to size. Jobs are then classified into occupations based on their duties. A selected job may fall into any one of about 480 occupational classifications. In the last step, the work level of each selected occupation is determined using a "generic leveling" process. Using identical criteria, generic leveling ranks and compares all occupations based on duties and responsibilities.

Presentation of data

The individual survey bulletins provide tabulations on the earnings of workers in a variety of occupational groups,

specific occupations, and a wide range of work levels. Also contained in the bulletins are information on the NCS program, a technical note describing survey procedures, and several appendixes with detailed information on occupational classifications and the generic leveling methodology. Earnings are defined as regular payments from the employer to the employee as compensation for straight-time hourly work, or for any salaried work performed. The following forms of payments are not considered part of straight-time earnings: shift differentials, premium pay for overtime, holidays, and weekends; bonuses not directly tied to production; uniform and tool allowances; free room and board; and payments, such as tips, made by third parties.

Metropolitan areas

All agencies that collect and publish data for metropolitan areas use the most recent definitions of metropolitan areas established by the Office of Management and Budget. A Metropolitan Statistical Area (MSA) is defined in terms of entire counties, except in the six New England States where they are defined in terms of cities and towns. If an area has a population greater than one million and meets certain other requirements specified in the *Federal Register*, it is termed a Consolidated Metropolitan Statistical Area (CMSA).

Additional information

For additional information regarding the NCS, please contact the Division of Compensation Data Analysis and Planning, 2 Massachusetts Ave. NE, Room 4175, Washington, DC 20212-0001.

Telephone: (202) 606-6220

Internet: <http://stats.bls.gov/comhome.htm>

TABLE C-1. Mean hourly earnings¹ for selected occupations, all workers, all industries, selected areas,² 1998

Occupation ³	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
ALL	\$15.42	\$16.99	\$18.55	\$20.72
All excluding sales	15.67	17.12	18.69	21.06
WHITE COLLAR	17.57	19.58	21.89	24.51
White collar excluding sales	18.24	20.19	22.58	25.48
Professional specialty and technical	21.70	24.70	26.02	29.95
Professional specialty	23.87	26.27	28.23	31.70
Engineers, architects, and surveyors	27.36	29.63	29.10	33.44
Civil engineers	23.76	30.91	—	35.69
Electrical and electronic engineers	28.40	29.14	—	33.84
Industrial engineers	—	21.91	27.69	30.58
Mechanical engineers	22.58	30.00	27.48	30.64
Engineers, n.e.c.	31.12	30.98	30.39	33.35
Mathematical and computer scientists	23.53	27.27	26.00	35.94
Computer systems analysts and scientists	23.72	29.13	25.63	35.89
Operations and systems researchers and analysts	23.06	18.05	26.86	—
Natural scientists	22.99	34.93	20.15	29.19
Chemists, except biochemists	26.65	—	—	—
Geologists and geodesists	—	36.23	—	—
Physical scientists, n.e.c.	—	—	—	29.54
Biological and life scientists	—	37.66	—	—
Health related	19.33	20.96	22.92	27.76
Physicians	—	—	29.08	26.82
Registered nurses	19.33	19.27	21.84	28.57
Pharmacists	26.18	27.02	27.74	—
Dietitians	—	—	15.73	18.89
Respiratory therapists	—	17.43	—	—
Physical therapists	—	—	26.84	—
Teachers, college and university	29.23	34.23	37.84	36.79
Psychology teachers	—	—	—	27.75
Engineering teachers	—	—	63.03	—
Health specialties teachers	—	—	32.82	—
Business, commerce and marketing teachers	—	—	—	36.89
English teachers	—	—	—	36.75
Teachers, post secondary, subject not specified	—	—	46.76	—
Teachers, post secondary, n.e.c.	—	—	28.07	31.79
Teachers, except college and university	27.77	23.51	34.20	31.95
Prekindergarten and kindergarten	—	—	33.93	18.22
Elementary school teachers	28.69	25.95	35.18	34.45
Secondary school teachers	29.50	25.89	36.90	32.43
Teachers, special education	26.39	—	38.78	36.21
Teachers, n.e.c.	26.45	22.34	33.36	34.64
Substitute teachers	—	9.94	10.92	12.65
Vocational and educational counselors	—	17.60	21.52	25.01
Librarians, archivists, and curators	20.39	—	23.93	24.25
Librarians	20.39	—	23.93	24.25
Social scientists and urban planners	19.82	17.53	17.94	27.34
Economists	17.29	18.43	—	29.10
Psychologists	—	14.16	—	24.90
Social, recreation, and religious workers	22.53	15.47	22.04	19.37
Social workers	22.59	16.25	22.23	22.18
Recreation workers	—	13.36	—	—
Lawyers and judges	—	43.89	45.80	46.70
Lawyers	—	—	45.64	46.70
Writers, authors, entertainers, athletes, and professionals, n.e.c.	22.04	25.80	30.97	27.03
Designers	—	—	—	26.07
Editors and reporters	25.41	27.53	—	—
Public relations specialists	—	19.47	—	—
Professional, n.e.c.	26.46	26.16	—	26.35
Technical	15.36	19.21	19.19	23.09
Clinical laboratory technologists and technicians	9.93	18.46	15.50	22.58
Health record technologists and technicians	—	—	14.04	15.62
Radiological technicians	—	16.47	17.30	23.51
Licensed practical nurses	14.02	13.22	14.63	17.50
Health technologists and technicians, n.e.c.	10.89	10.87	12.97	17.94
Electrical and electronic technicians	—	18.29	20.21	20.75
Mechanical engineering technicians	—	—	22.19	—

See footnotes at end of table.

TABLE C-1. Mean hourly earnings¹ for selected occupations, all workers, all industries, selected areas,² 1998—Continued

Occupation ³	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
WHITE COLLAR—Continued				
Professional specialty and technical—Continued				
Technical—Continued				
Engineering technicians, n.e.c.	—	\$20.50	—	\$20.46
Drafters	—	21.58	\$21.28	28.34
Biological technicians	—	15.02	—	—
Chemical technicians	—	15.93	18.68	—
Airplane pilots and navigators	—	—	—	121.54
Computer programmers	—	26.86	28.21	29.58
Legal assistants	—	—	—	20.25
Technical and related, n.e.c.	\$19.21	17.92	19.28	19.72
Executive, administrative, and managerial				
Executives, administrators, and managers	26.54	26.57	28.75	33.47
Administrators and officials, public administration	31.74	30.44	34.14	39.67
Financial managers	20.43	28.56	29.84	31.00
Personnel and labor relations managers	32.03	24.69	37.95	36.45
Managers, marketing, advertising and public relations	—	27.93	—	33.37
Administrators, education and related fields	33.44	27.98	40.38	41.16
Managers, medicine and health	33.74	33.35	36.90	33.80
Managers, food servicing and lodging establishments	30.19	—	28.20	33.91
Managers, service organizations, n.e.c.	20.44	—	—	—
Managers and administrators, n.e.c.	19.88	25.34	—	21.94
Management related	34.41	34.24	36.43	45.22
Accountants and auditors	21.31	20.64	23.26	25.37
Underwriters	20.88	19.45	21.37	23.99
Other financial officers	—	23.05	—	—
Management analysts	22.11	23.35	31.03	26.50
Personnel, training, and labor relations specialists	—	27.83	—	29.67
Purchasing agents and buyers, n.e.c.	19.60	19.26	24.07	30.49
Construction inspectors	22.11	23.94	26.76	26.37
Inspectors and compliance officers, except construction	—	—	21.35	27.62
Management related, n.e.c.	—	15.61	—	22.64
	25.24	20.37	24.08	23.74
Sales				
Supervisors, sales	11.91	15.68	16.28	15.42
Real estate sales	14.08	24.35	18.56	20.03
Securities and financial services sales	—	19.73	—	—
Advertising and related sales	—	—	—	16.55
Sales, other business services	26.05	—	21.17	26.35
Sales representatives, mining, manufacturing, and wholesale	—	16.24	21.23	15.00
Sales workers, motor vehicles and boats	30.05	20.87	23.84	31.19
Sales workers, apparel	—	—	25.76	—
Sales workers, furniture & home furnishings	7.41	—	—	9.89
Sales workers, other commodities	—	6.87	13.23	9.08
Sales counter clerks	8.36	—	10.98	10.28
Cashiers	—	—	8.51	—
Sales support, n.e.c.	6.69	8.89	8.06	10.59
	—	10.67	—	16.46
Administrative support, including clerical				
Supervisors, general office	11.74	12.05	13.07	14.65
Supervisors, financial records processing	14.36	15.73	18.08	19.98
Supervisors, distribution, scheduling, and adjusting clerks	—	17.24	18.34	23.62
Computer operators	—	—	—	19.05
Secretaries	—	15.75	15.95	18.20
Stenographers	14.02	13.69	14.43	17.06
Typists	—	—	13.16	19.51
Interviewers	12.33	11.93	9.71	14.23
Hotel clerks	—	11.08	10.21	—
Transportation ticket and reservation agents	—	—	—	10.11
Receptionists	—	—	—	14.25
Information clerks, n.e.c.	8.34	9.28	9.19	10.66
Correspondence clerks	9.28	10.39	—	14.88
Order clerks	—	11.48	—	—
Personnel clerks except payroll & timekeeping	11.98	11.38	12.16	13.52
Library clerks	—	11.52	14.01	18.46
	10.60	10.61	10.99	13.95

See footnotes at end of table.

TABLE C-1. Mean hourly earnings¹ for selected occupations, all workers, all industries, selected areas,² 1998—Continued

Occupation ³	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
WHITE COLLAR—Continued				
Administrative support, including clerical—Continued				
File clerks	—	\$9.48	—	\$10.49
Records clerks, n.e.c.	\$12.26	11.98	\$10.82	13.07
Bookkeepers, accounting and auditing clerks	12.07	12.09	11.47	14.96
Payroll and timekeeping clerks	—	—	12.43	—
Billing clerks	9.95	—	10.92	15.06
Cost and rate clerks	—	12.52	—	—
Telephone operators	—	—	11.28	—
Dispatchers	—	—	—	18.56
Production coordinators	13.26	14.08	19.28	15.72
Traffic, shipping and receiving clerks	10.39	10.13	11.99	14.31
Stock and inventory clerks	10.11	12.75	10.64	12.31
Expeditors	—	11.12	—	—
Material recording, scheduling, and distribution clerks, n.e.c.	11.33	10.16	14.25	16.76
Insurance adjusters, examiners, & investigators	13.86	14.23	13.63	15.99
Investigators and adjusters except insurance	—	12.73	13.88	14.17
Eligibility clerks, social welfare	—	—	—	18.00
Bill and account collectors	10.71	—	12.14	15.61
General office clerks	10.08	11.47	11.98	13.81
Bank tellers	—	—	9.81	9.52
Data entry keyers	9.03	8.92	8.59	12.34
Teachers' aides	9.16	8.18	10.80	11.99
Administrative support, n.e.c.	11.53	10.76	13.88	15.24
BLUE COLLAR	12.77	13.19	16.35	15.19
Precision production, craft, and repair				
Supervisors, mechanics and repairers	—	20.25	22.22	24.55
Automobile mechanics	—	—	18.54	22.22
Bus, truck, and stationary engine mechanics	—	16.03	15.65	19.22
Heavy equipment mechanics	—	—	20.32	—
Industrial machinery repairers	16.97	17.85	20.28	20.91
Machinery maintenance	—	14.66	—	—
Electronic repairers, communications and industrial equipment ..	16.00	—	—	17.53
Millwrights	—	—	22.77	—
Mechanics and repairers, n.e.c.	16.99	14.81	19.86	20.01
Supervisors, construction trades, n.e.c.	15.90	—	24.95	—
Carpenters	14.83	—	21.65	—
Electricians	—	19.23	23.14	23.87
Plumbers, pipefitters and steamfitters	—	—	23.65	—
Construction trades, n.e.c.	17.53	—	15.69	19.15
Supervisors, production	18.85	14.77	20.06	22.65
Tool and die makers	—	—	22.57	—
Tool and die maker apprentices	—	—	15.85	—
Machinists	—	16.99	20.38	21.78
Precision grinders, filers, and tool sharpeners	—	—	21.75	—
Patternmakers, layout workers, and cutters	—	—	24.30	—
Electrical and electronic equipment assemblers	—	9.91	—	10.07
Butchers and meat cutters	—	11.24	14.66	—
Inspectors, testers, and graders	—	16.73	19.88	15.18
Stationary engineers	—	—	19.36	24.68
Machine operators, assemblers, and inspectors				
Lathe and turning machine operators	12.08	10.93	15.33	12.28
Punching and stamping press operators	—	—	14.72	—
Grinding, abrading, buffing, and polishing machine operators	12.56	—	16.04	—
Fabricating machine operators, n.e.c.	—	—	11.90	—
Printing press operators	12.34	—	20.27	—
Textile sewing machine operators	—	16.59	—	—
Laundry and dry cleaning machine operators	—	—	11.86	—
Packaging and filling machine operators	—	—	7.63	—
Mixing and blending machine operators	12.33	—	10.62	—
Miscellaneous machine operators, n.e.c.	—	14.04	—	—
Welders and cutters	12.93	10.31	12.35	12.17
Assemblers	12.58	12.72	16.13	—
	10.66	8.83	16.48	11.53

See footnotes at end of table.

TABLE C-1. Mean hourly earnings¹ for selected occupations, all workers, all industries, selected areas,² 1998—Continued

Occupation ³	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
BLUE COLLAR—Continued				
Machine operators, assemblers, and inspectors—Continued				
Production inspectors, checkers and examiners	\$10.74	\$11.73	\$15.18	\$11.20
Transportation and material moving	13.45	13.99	15.36	15.79
Truck drivers	11.76	15.09	14.44	15.63
Bus drivers	14.72	11.90	12.17	14.94
Motor transportation, n.e.c.	—	6.35	—	—
Crane and tower operators	—	—	15.28	—
Industrial truck and tractor equipment operators	12.63	11.88	15.56	15.56
Miscellaneous material moving equipment operators, n.e.c.	—	14.79	—	—
Handlers, equipment cleaners, helpers, and laborers	10.11	10.38	10.57	10.85
Groundskeepers and gardeners except farm	—	12.45	12.90	15.74
Construction laborers	13.19	10.91	—	—
Production helpers	11.40	9.37	—	—
Stock handlers and baggers	9.46	8.94	9.32	9.27
Freight, stock, and material handlers, n.e.c.	11.40	12.59	11.19	13.07
Vehicle washers and equipment cleaners	—	9.39	10.30	6.64
Hand packers and packagers	—	9.21	9.70	7.83
Laborers except construction, n.e.c.	9.31	9.58	12.68	14.30
SERVICE	9.79	10.10	9.81	12.66
Protective service	14.47	19.81	13.27	16.96
Supervisors, guards	—	—	—	14.70
Firefighting	—	—	15.96	22.49
Police and detectives, public service	—	22.33	19.01	27.92
Sheriffs, bailiffs, and other law enforcement officers	—	—	—	21.99
Correctional institution officers	—	—	15.65	20.58
Crossing guards	—	—	6.85	—
Guards and police except public service	7.39	12.82	7.28	8.85
Protective service, n.e.c.	—	—	14.87	—
Food service	5.84	7.03	6.84	8.73
Supervisors, food preparation and service	—	15.26	—	11.94
Bartenders	5.24	5.07	7.57	—
Waiters and waitresses	2.61	3.59	4.00	6.39
Cooks	8.52	8.30	9.00	13.72
Food counter, fountain, and related	—	—	5.72	—
Kitchen workers, food preparation	8.81	8.94	—	8.55
Waiters/waitresses' assistants	5.19	3.76	—	8.32
Food preparation, n.e.c.	7.47	6.40	6.36	7.57
Health service	8.46	9.19	8.71	11.69
Health aides, except nursing	9.21	9.34	10.48	14.08
Nursing aides, orderlies and attendants	8.37	8.96	8.28	10.84
Cleaning and building service	9.51	8.80	11.27	11.38
Supervisors, cleaning & building service workers	—	11.99	11.81	23.86
Maids and housemen	—	6.78	6.91	9.61
Janitors and cleaners	9.62	8.79	11.82	11.22

See footnotes at end of table.

TABLE C-1. Mean hourly earnings¹ for selected occupations, all workers, all industries, selected areas,² 1998—Continued

Occupation ³	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
SERVICE—Continued				
Personal service	\$8.47	\$9.29	\$8.20	\$12.58
Attendants, amusement and recreation facilities	—	—	—	8.70
Baggage porters and bellhops	—	—	—	8.03
Welfare service aides	—	—	—	6.52
Early childhood teachers' assistants	—	6.68	7.47	9.71
Child care workers, n.e.c.	9.78	7.09	9.34	12.96
Service, n.e.c.	7.18	8.57	8.51	10.54

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, deferred income payments, and deadhead pay. Excluded are shift differentials, premium pay for overtime, vacations, and holidays, non-production bonuses, uniform and tool allowances, room and board, third party payments, on-call pay, and tips. The mean is computed by totaling the pay of all workers weighted by hours and dividing by the number of workers.

² The average payroll month for Columbus, OH, was March 1998; Denver-Boulder-Greeley, CO, was May 1998; Detroit-Ann Arbor-Flint, MI, was March 1998,

and San Francisco-Oakland-San Jose, CA, was June 1998.

³ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately. n.e.c. means "not elsewhere classified."

TABLE C-2. Mean hourly earnings¹ by occupational group and level,² all workers, selected areas,³ 1998

Occupational group ⁴ and level	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
ALL	\$15.42	\$16.99	\$18.55	\$20.72
All excluding sales	15.67	17.12	18.69	21.06
WHITE COLLAR	17.57	19.58	21.89	24.51
Level 1	7.29	7.56	7.16	7.00
Level 2	8.18	8.74	9.42	9.59
Level 3	8.97	9.52	10.65	11.12
Level 4	10.74	11.23	12.97	13.57
Level 5	12.58	13.30	14.13	16.65
Level 6	14.38	14.71	18.29	19.15
Level 7	16.55	19.11	19.43	21.92
Level 8	19.58	21.08	22.95	23.54
Level 9	23.17	23.13	25.68	28.56
Level 10	26.76	25.29	26.17	30.10
Level 11	26.71	29.19	31.04	35.86
Level 12	34.93	35.04	35.24	40.37
Level 13	43.84	43.54	38.79	48.04
Level 14	52.51	50.01	45.91	65.66
Level 15	—	—	—	94.81
Not able to be leveled	20.80	32.82	32.29	25.58
White-collar excluding sales	18.24	20.19	22.58	25.48
Level 1	7.59	8.23	7.70	8.33
Level 2	8.40	9.25	9.88	9.91
Level 3	9.53	9.89	11.05	11.56
Level 4	11.14	11.18	12.73	13.96
Level 5	12.60	13.30	13.66	16.71
Level 6	14.42	14.75	18.54	19.37
Level 7	16.43	18.90	19.14	21.99
Level 8	19.28	20.11	23.27	23.47
Level 9	23.13	23.29	25.80	28.57
Level 10	26.61	24.80	26.12	29.99
Level 11	26.40	29.12	30.98	36.00
Level 12	33.73	34.10	35.25	40.35
Level 13	43.84	43.54	38.79	47.86
Level 14	52.51	50.01	45.91	65.66
Level 15	—	—	—	94.81
Not able to be leveled	21.17	31.74	32.50	25.80
Professional specialty and technical	21.70	24.70	26.02	29.95
Professional specialty	23.87	26.27	28.23	31.70
Level 5	12.23	13.75	11.29	20.05
Level 6	14.32	14.71	28.40	23.73
Level 7	16.85	20.68	19.88	27.21
Level 8	19.69	22.47	27.01	25.69
Level 9	24.24	24.13	27.02	30.05
Level 10	29.62	25.17	26.58	29.30
Level 11	26.43	28.23	31.28	35.79
Level 12	33.91	31.63	34.02	38.91
Level 13	43.68	40.09	29.45	46.59
Level 14	—	47.88	—	52.80
Not able to be leveled	22.90	33.48	29.35	26.89
Engineers, architects, and surveyors	27.36	29.63	29.10	33.44
Level 6	—	—	—	21.06
Level 7	—	—	—	25.01
Level 8	—	—	—	22.92
Level 9	23.70	24.76	24.75	29.41
Level 10	—	25.49	—	31.89
Level 11	32.19	—	29.70	35.35
Level 12	33.57	33.57	31.97	39.94
Level 13	—	39.10	—	42.13
Level 14	—	42.37	—	52.86
Mathematical and computer scientists	23.53	27.27	26.00	35.94
Level 7	—	—	—	27.76
Level 8	—	—	—	27.75
Level 9	22.23	26.07	23.93	33.55
Level 10	—	24.46	—	28.40

See footnotes at end of table.

TABLE C-2. Mean hourly earnings¹ by occupational group and level,² all workers, selected areas,³
1998—Continued

Occupational group ⁴ and level	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
WHITE COLLAR—Continued				
Professional specialty and technical—Continued				
Professional specialty—Continued				
Mathematical and computer scientists—Continued				
Level 11	—	\$29.14	\$29.49	\$38.40
Level 12	—	29.96	—	38.27
Level 13	—	36.32	—	48.62
Natural scientists	\$22.99	34.93	20.15	29.19
Level 13	—	36.12	—	—
Health related	19.33	20.96	22.92	27.76
Level 6	—	—	17.40	—
Level 7	—	18.15	20.51	28.19
Level 8	—	18.65	21.21	25.36
Level 9	19.38	23.39	21.88	27.71
Level 10	25.97	—	25.38	26.09
Level 11	—	24.65	27.51	26.53
Not able to be leveled	—	—	27.71	35.92
Teachers, college and university	29.23	34.23	37.84	36.79
Level 6	—	—	—	20.80
Level 7	—	—	—	21.90
Level 8	—	—	50.96	—
Level 9	—	24.30	38.41	30.57
Level 10	—	—	35.69	34.65
Level 11	—	25.71	36.15	49.77
Level 13	—	—	—	48.68
Teachers, except college and university	27.77	23.51	34.20	31.95
Level 5	—	13.30	10.19	18.60
Level 6	—	11.51	39.16	31.48
Level 7	—	23.32	13.72	36.05
Level 8	—	26.67	36.45	27.71
Level 9	28.66	25.90	34.28	33.20
Level 10	—	—	—	35.43
Librarians, archivists, and curators	20.39	—	23.93	24.25
Level 9	24.63	—	—	—
Social scientists and urban planners	19.82	17.53	17.94	27.34
Level 7	—	13.09	—	—
Social, religious, and recreation workers	22.53	15.47	22.04	19.37
Level 7	—	17.56	—	—
Level 8	—	—	20.04	18.19
Level 9	14.24	21.43	19.47	22.30
Level 10	—	—	16.22	16.86
Level 11	—	—	35.41	20.05
Lawyers and judges	—	43.89	45.80	46.70
Level 12	—	—	—	44.62
Writers, authors, entertainers, athletes, and professionals, n.e.c.	22.04	25.80	30.97	27.03
Level 6	—	15.46	—	—
Level 8	18.56	—	—	—
Level 9	21.42	19.85	24.70	26.79
Level 11	—	38.19	—	—
Not able to be leveled	20.83	29.63	30.73	23.62
Technical	15.36	19.21	19.19	23.09
Level 3	—	10.87	9.57	10.88
Level 4	8.77	10.84	13.19	15.38
Level 5	12.98	12.76	13.19	17.81
Level 6	13.38	13.57	17.20	20.28
Level 7	15.25	18.00	20.26	19.42
Level 8	18.92	17.82	21.75	22.43
Level 9	20.93	22.03	23.40	29.92
Level 10	—	23.05	29.10	24.01
Level 11	—	35.91	—	46.30
Not able to be leveled	—	—	—	22.81
Executive, administrative, and managerial	26.54	26.57	28.75	33.47
Level 5	—	14.49	—	15.61

See footnotes at end of table.

TABLE C-2. Mean hourly earnings¹ by occupational group and level,² all workers, selected areas,³
1998—Continued

Occupational group ⁴ and level	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
WHITE COLLAR—Continued				
Executive, administrative, and managerial—Continued				
Level 6	\$14.49	\$15.67	\$16.98	\$18.92
Level 7	15.81	16.67	18.37	20.97
Level 8	18.49	17.70	—	21.17
Level 9	21.43	22.41	23.95	26.09
Level 10	23.53	25.34	24.94	31.88
Level 11	26.41	29.44	30.75	34.60
Level 12	33.53	36.83	36.59	41.79
Level 13	43.87	42.15	42.90	47.34
Level 14	53.44	59.81	50.23	69.82
Level 15	—	—	—	94.81
Not able to be leveled	—	45.32	48.30	36.61
Executives, administrators, and managers	31.74	30.44	34.14	39.67
Level 6	—	16.07	—	—
Level 7	16.46	18.54	15.77	22.27
Level 8	19.18	17.07	19.05	18.45
Level 9	22.95	23.13	25.25	26.32
Level 10	—	29.93	25.19	34.36
Level 11	28.09	30.37	30.97	36.04
Level 12	33.60	37.69	37.19	42.82
Level 13	43.96	44.62	42.90	47.50
Level 14	53.44	61.00	55.71	70.01
Level 15	—	—	—	94.81
Not able to be leveled	—	57.82	68.04	38.86
Management related	21.31	20.64	23.26	25.37
Level 5	—	14.03	—	15.61
Level 6	14.25	14.96	16.41	19.39
Level 7	15.40	15.01	20.15	20.50
Level 8	18.24	18.53	—	22.55
Level 9	20.85	21.60	22.84	25.95
Level 10	—	22.06	24.78	25.40
Level 11	25.17	27.19	30.03	30.55
Level 12	—	—	34.78	36.72
Level 13	—	36.61	—	—
Not able to be leveled	—	21.25	—	34.93
Sales	11.91	15.68	16.28	15.42
Level 1	6.82	6.75	6.72	6.44
Level 2	7.34	—	8.17	7.61
Level 3	7.34	8.28	9.49	9.99
Level 4	8.39	11.47	14.57	11.64
Level 5	12.30	13.27	17.11	16.27
Level 6	—	14.26	—	16.39
Level 7	18.21	21.50	21.87	20.88
Level 8	22.44	26.50	19.64	24.27
Level 9	—	20.71	23.54	27.71
Level 10	—	28.19	—	—
Level 11	—	29.99	31.71	33.13
Level 12	—	49.87	—	40.93
Administrative support, including clerical	11.74	12.05	13.07	14.65
Level 1	7.59	8.23	7.70	8.33
Level 2	8.65	9.25	9.89	9.93
Level 3	9.56	9.87	11.11	11.62
Level 4	11.45	11.22	12.70	13.92
Level 5	12.63	13.11	14.17	16.49
Level 6	14.72	14.79	15.10	17.59
Level 7	16.77	16.72	17.23	19.59
Level 8	—	—	19.54	18.60
Level 9	—	21.38	—	—
Not able to be leveled	—	11.09	16.64	12.73

See footnotes at end of table.

TABLE C-2. Mean hourly earnings¹ by occupational group and level,² all workers, selected areas,³ 1998—Continued

Occupational group ⁴ and level	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
BLUE COLLAR	\$12.77	\$13.19	\$16.35	\$15.19
Level 1	8.12	7.77	8.54	7.93
Level 2	10.56	9.04	10.65	10.25
Level 3	10.63	10.35	16.75	11.48
Level 4	12.60	11.67	16.30	13.96
Level 5	14.02	12.66	15.40	16.46
Level 6	14.61	14.65	18.53	20.53
Level 7	17.15	17.93	21.36	21.14
Level 8	15.70	19.91	23.99	26.31
Level 9	21.41	21.23	27.12	26.84
Not able to be leveled	16.06	14.17	—	23.98
Precision production, craft, and repair	15.52	15.99	20.41	18.72
Level 2	—	8.15	—	9.83
Level 3	12.33	8.08	13.64	—
Level 4	13.57	9.73	14.53	14.51
Level 5	15.24	12.23	16.03	16.03
Level 6	15.27	15.20	18.81	21.45
Level 7	17.22	17.55	21.44	21.11
Level 8	—	20.16	23.69	26.45
Level 9	—	19.61	27.12	26.84
Machine operators, assemblers, and inspectors	12.08	10.93	15.33	12.28
Level 1	—	7.04	7.98	8.27
Level 2	10.68	8.01	9.95	8.00
Level 3	10.59	9.36	17.23	11.83
Level 4	11.47	10.54	16.89	12.90
Level 5	13.55	12.89	15.44	14.89
Level 6	13.25	14.01	—	14.39
Level 7	16.12	16.91	17.94	—
Transportation and material moving	13.45	13.99	15.36	15.79
Level 1	—	—	9.05	—
Level 2	10.35	9.98	11.70	11.34
Level 3	10.33	10.04	16.03	14.47
Level 4	14.22	13.47	16.86	14.53
Level 5	13.80	12.85	15.63	18.39
Level 6	—	14.59	—	24.80
Level 7	—	19.75	—	22.60
Handlers, equipment cleaners, helpers, and laborers	10.11	10.38	10.57	10.85
Level 1	8.09	8.27	8.71	7.36
Level 2	9.79	9.20	10.63	10.40
Level 3	10.17	11.72	13.84	12.03
Level 4	13.09	11.47	12.53	13.64
Level 5	—	13.42	—	16.19
Level 6	—	14.28	—	—
SERVICE	9.79	10.10	9.81	12.66
Level 1	6.57	6.51	7.44	7.23
Level 2	7.32	7.11	8.96	8.99
Level 3	7.32	8.27	8.10	10.78
Level 4	9.13	9.90	9.11	13.19
Level 5	10.16	11.96	12.50	17.31
Level 6	—	14.64	14.33	20.61
Level 7	15.28	17.50	16.96	22.42
Level 8	—	—	18.35	23.71
Level 9	—	23.22	21.45	23.20
Protective service	14.47	19.81	13.27	16.96
Level 2	—	—	9.78	8.29
Level 3	—	—	6.70	—
Level 4	—	—	—	17.45
Level 5	—	13.67	12.53	18.11
Level 6	—	—	16.33	25.81
Level 7	15.32	19.18	17.60	24.41

See footnotes at end of table.

TABLE C-2. Mean hourly earnings¹ by occupational group and level,² all workers, selected areas,³ 1998—Continued

Occupational group ⁴ and level	Columbus, OH	Denver- Boulder- Greeley, CO	Detroit- Ann Arbor- Flint, MI	San Francisco- Oakland- San Jose, CA
SERVICE—Continued				
Protective service—Continued				
Level 8	—	—	\$18.34	\$27.81
Level 9	—	—	21.45	27.19
Food service	\$5.84	\$7.03	6.84	8.73
Level 1	5.14	5.23	6.16	6.53
Level 2	5.41	5.57	6.12	7.94
Level 3	5.32	6.00	7.21	8.49
Level 4	9.31	9.01	8.36	10.40
Level 5	—	—	—	11.44
Health service	8.46	9.19	8.71	11.69
Level 1	7.84	—	—	—
Level 2	8.39	8.64	8.38	9.03
Level 3	8.79	9.36	8.38	11.05
Level 4	—	10.03	10.23	13.06
Cleaning and building service	9.51	8.80	11.27	11.38
Level 1	8.06	7.79	9.45	7.69
Level 2	8.58	7.93	12.14	10.23
Level 3	11.39	10.04	13.28	14.39
Level 4	—	—	11.38	11.27
Level 5	—	10.92	—	—
Personal service	8.47	9.29	8.20	12.58
Level 1	6.13	5.48	6.67	7.07
Level 2	—	—	7.96	8.34
Level 3	7.67	8.29	7.53	10.00
Level 4	—	11.66	8.87	13.35
Level 6	—	15.95	—	—

¹ Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, hazard pay, deferred income payments, and deadhead pay. Excluded are shift differentials, premium pay for overtime, vacations, and holidays, non-production bonuses, uniform and tool allowances, room and board, third party payments, on-call pay, and tips. The mean is computed by totaling the pay of all workers weighted by hours and dividing by the number of workers.

² Each occupation for which wage data are collected in an establishment is evaluated based on 10 factors, including knowledge, complexity, work environment, etc. Points are assigned based on the occupation's ranking within each factor. The points are summed to determine the overall level of the occupation.

³ The average payroll month for Columbus, OH, was March 1998; Denver-Boulder-Greeley, CO, was May 1998; Detroit-Ann Arbor-Flint, MI, was March 1998, and San Francisco-Oakland-San Jose, CA, was June 1998.

⁴ A classification system including about 480 individual occupations is used to cover all workers in the civilian economy. Individual occupations are classified into one of nine major occupational groups.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupational groups may include data for categories not shown separately. n.e.c. means "not elsewhere classified."